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Robert Sanchez

02/25/2002 09:28 AM

To: Louis Fournier <starcompany@erols.com>
Subject: Re: Galaxy/Spectron Site

Lou,

I spoke to Dominic DiGiulio (580)436-8605 of EPA's Subsurface Protection and Remediation Division (SPRD) (AKA "think tank") in ADA Oklahoma. He said that in order for air to pass through a low permeability layer it would have to displace the water bound in capillary attraction. He said the pressure of the air below would have to be greater than the capillary pressure. He helped me understand by describing the well as creating a cone shaped vadose zone above the well. If vacose zone is maintained and additional air is added the pressure could increase enough to displace water, however he pointed out that it is likely that the air will escape sideways before building up pressure. He said that fractured air flow is hard to predict in un-uniformed soils (IE short-circuiting). Which seems as a general comment on Bio-sparging. He agreed with you that if there were wells or pushes through the layer it would possibly allow air to short circuit at those points. He told me to be careful about using Biosparging below a confining layer as it may travel below that layer and enter a building. I don't think that is a problem at Spectron as the layer seems to end near the stream. Thanks for all your input. Rob

FYI -

Office of Research and Development
National Risk Management Research Laboratory
Subsurface Protection and Remediation Division (SPRD)
EPA's Ada, OK web link:
<http://www.epa.gov/ada/kerlab.html>

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02/23/02 11:05 AM

To: Robert Sanchez/R3/USEPA/US@EPA
cc:
Subject: Re: Galaxy/Spectron Site

Rob,

I want to thank you once again for supporting the potential use of horizontal biosparge wells at the Galaxy-Spectron site. There is no question that they will work to clean up the site and that they are far more acceptable as a remediation technology than something like HRC or potassium permanganate. With regard to the latter, you may want to take a look at our web site related to problems with permanganate.

You can either go directly to the document at:

<http://www.angelfire.com/biz/horizontalwells/TechInfo/permanganate.html>

OR, go to

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<http://www.angelfire.com/biz/horizontalwells/>

and then click on the link at the bottom of the page to look at permanganate info.

Regards,

Lou

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